



Introduction to Game Development in Unity

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Agenda

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02

What is Unity?

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About The Assembly

- A smart lab & makerspace based out of in5 since 2014
- Over 350 free workshops done
- Focus on Smart Technology & Practical Applications
- Assembly : HACK - Embedded systems, IoT, hardware
- Assembly : CODE - Software - APIs, frameworks, apps
- Assembly: Data Science - Advanced topics in AI/ML
- Audience – Students | Professionals | Entrepreneurs
- Social Media: @makesmartthings
- www.theassembly.ae → Online workshop videos

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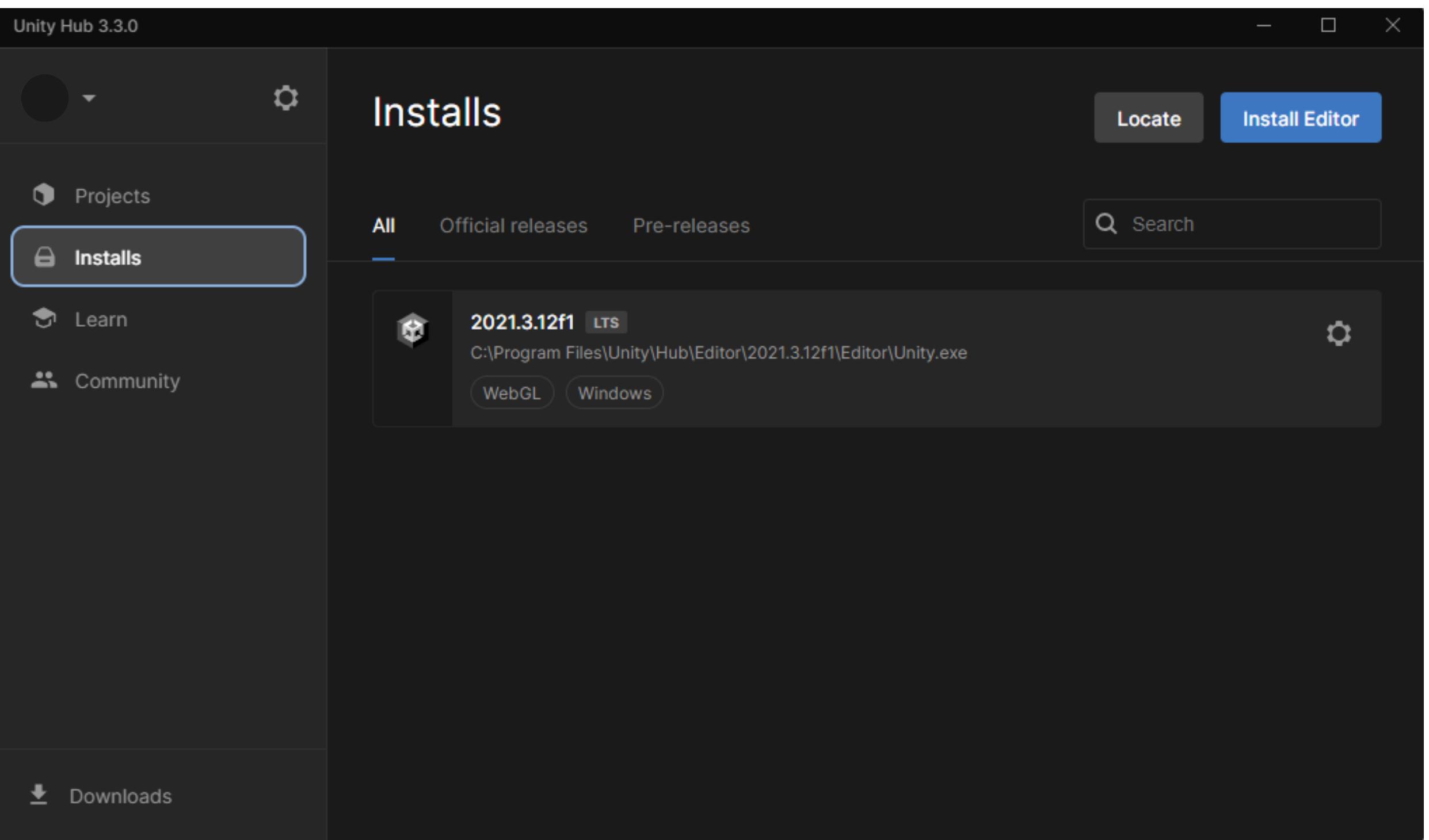
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Quick Note

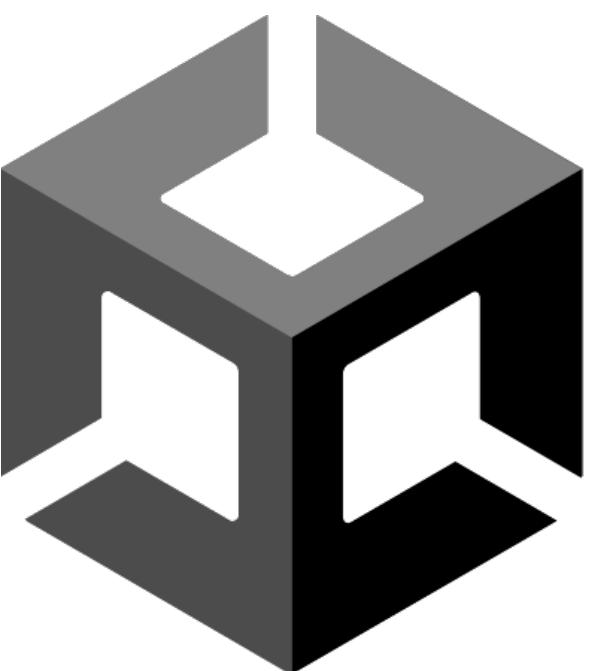


01 Install Unity Hub at: <https://unity3d.com/get-unity/download>



What is Unity?

- 01 Unity is a Game engine
- 02 Uses C# for scripting and other aspects
- 03 Similar softwares: Unreal, Godot and GMS



Unity



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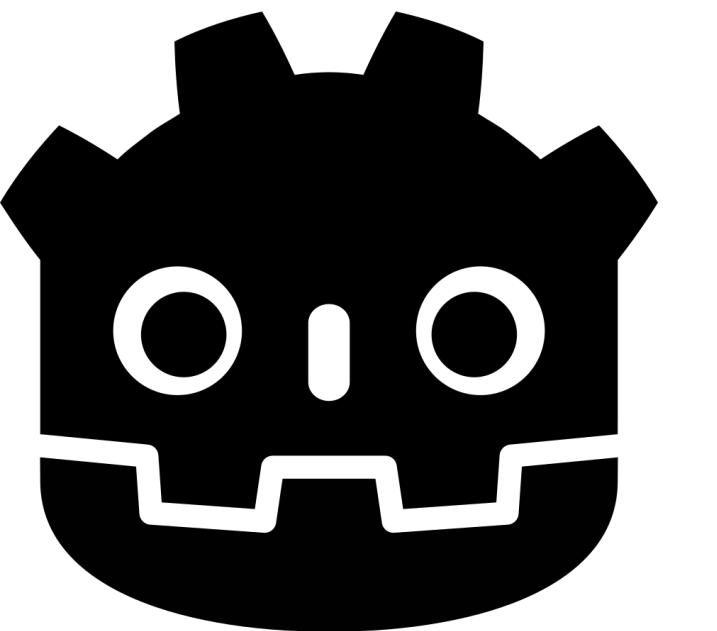
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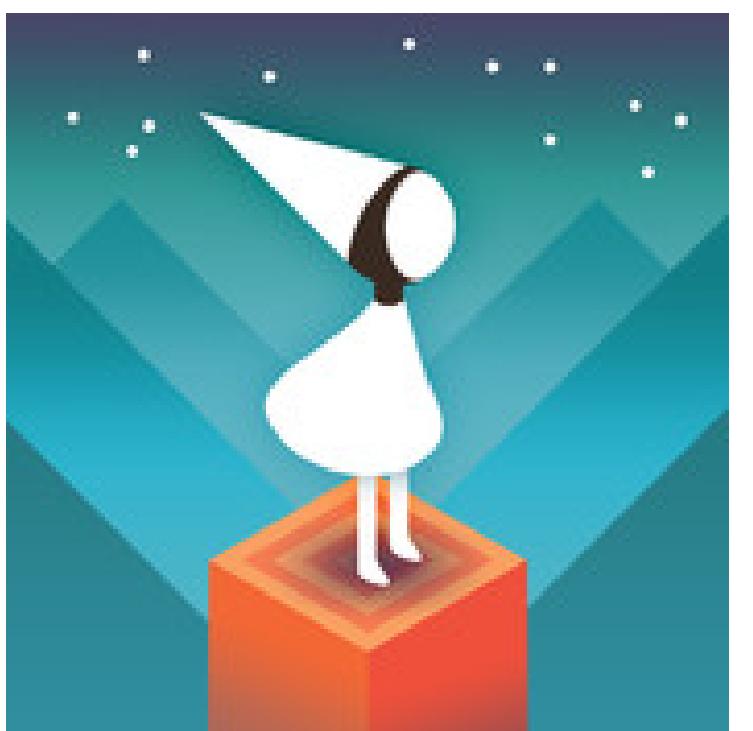


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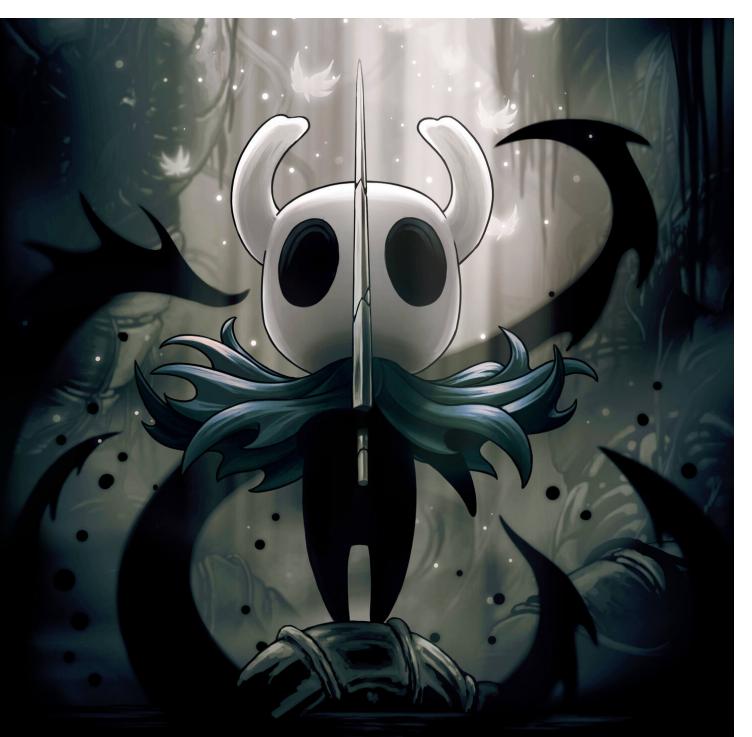
Similar softwares



Games Built with Unity



Monument Valley



Hollow Knight



Remnant: From the Ashes

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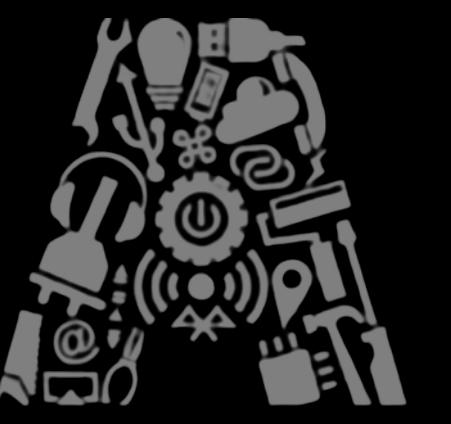
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Unity Hub Overview

01 Downloading Stable Unity Editor

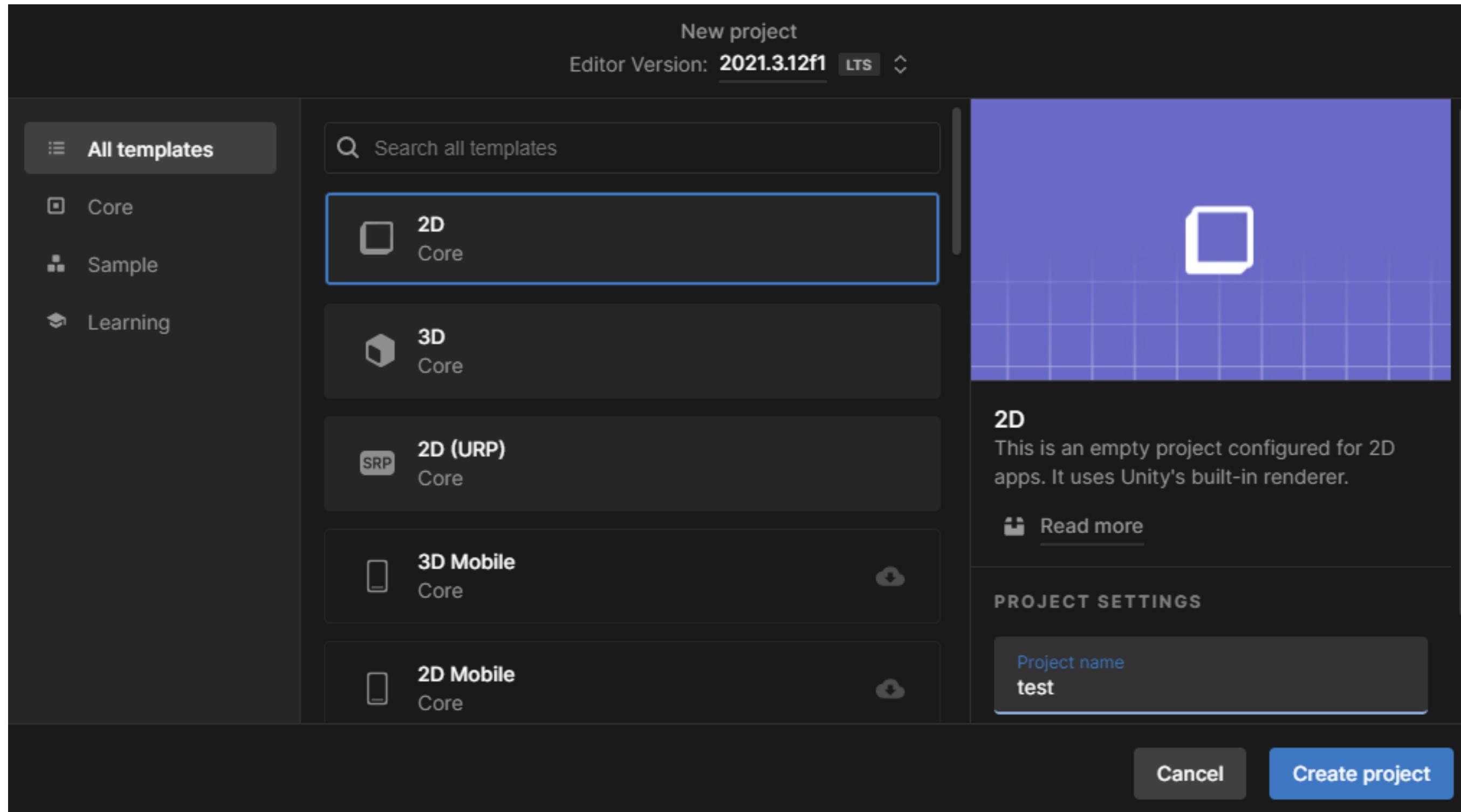
02 Installing modules

03 Creating projects

03 Default project location



Unity Hub Overview



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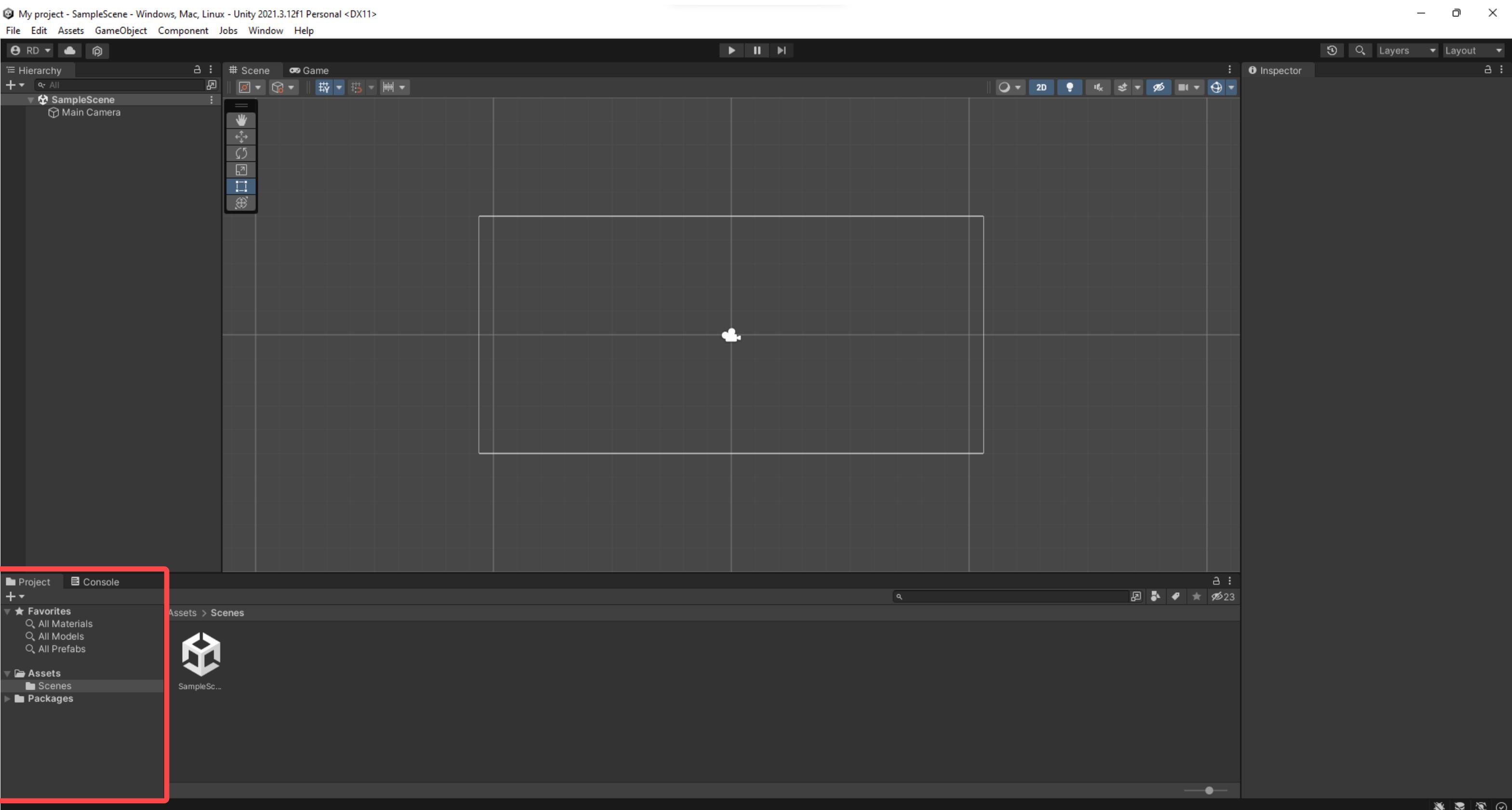
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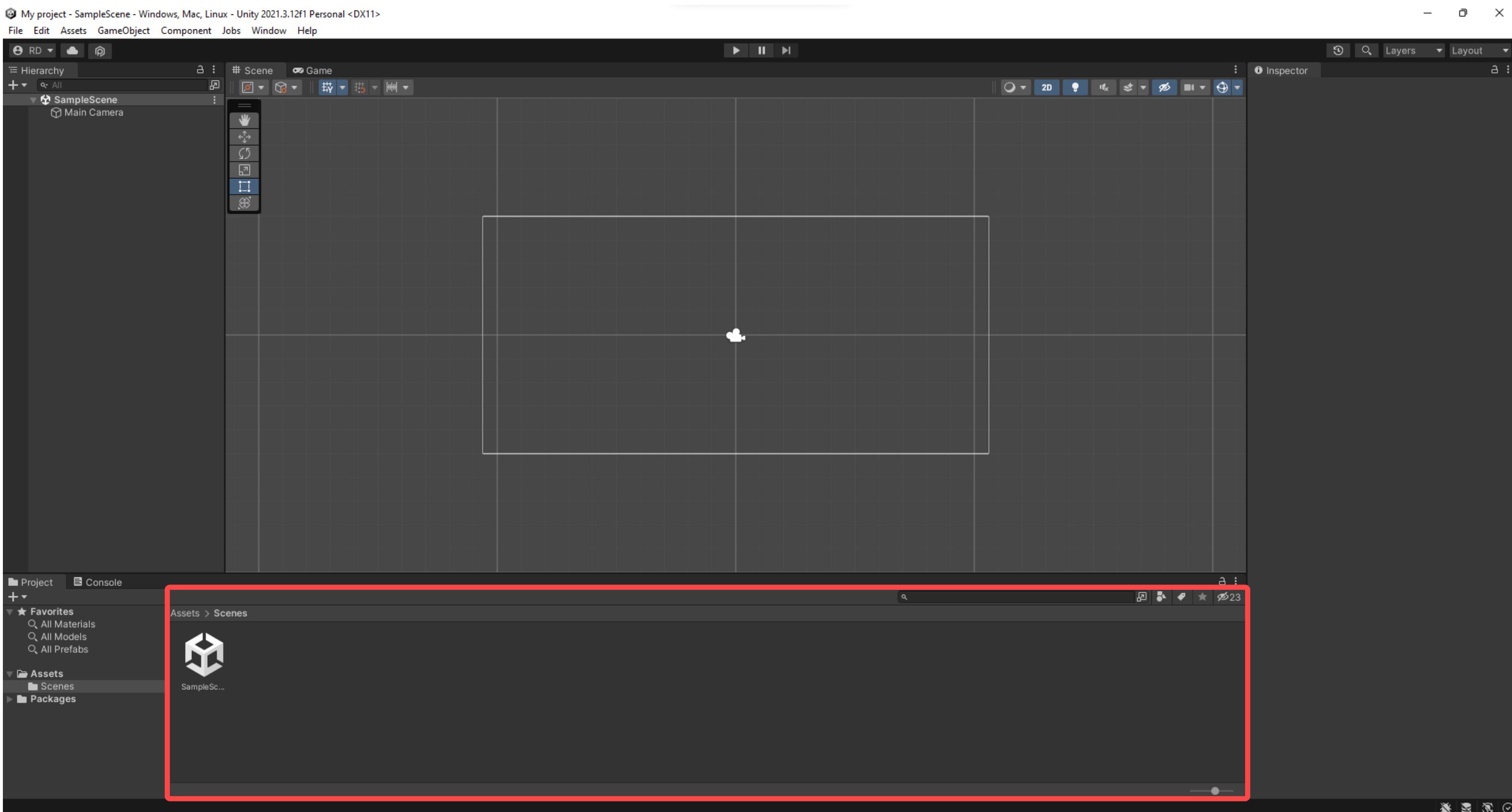
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File Tree



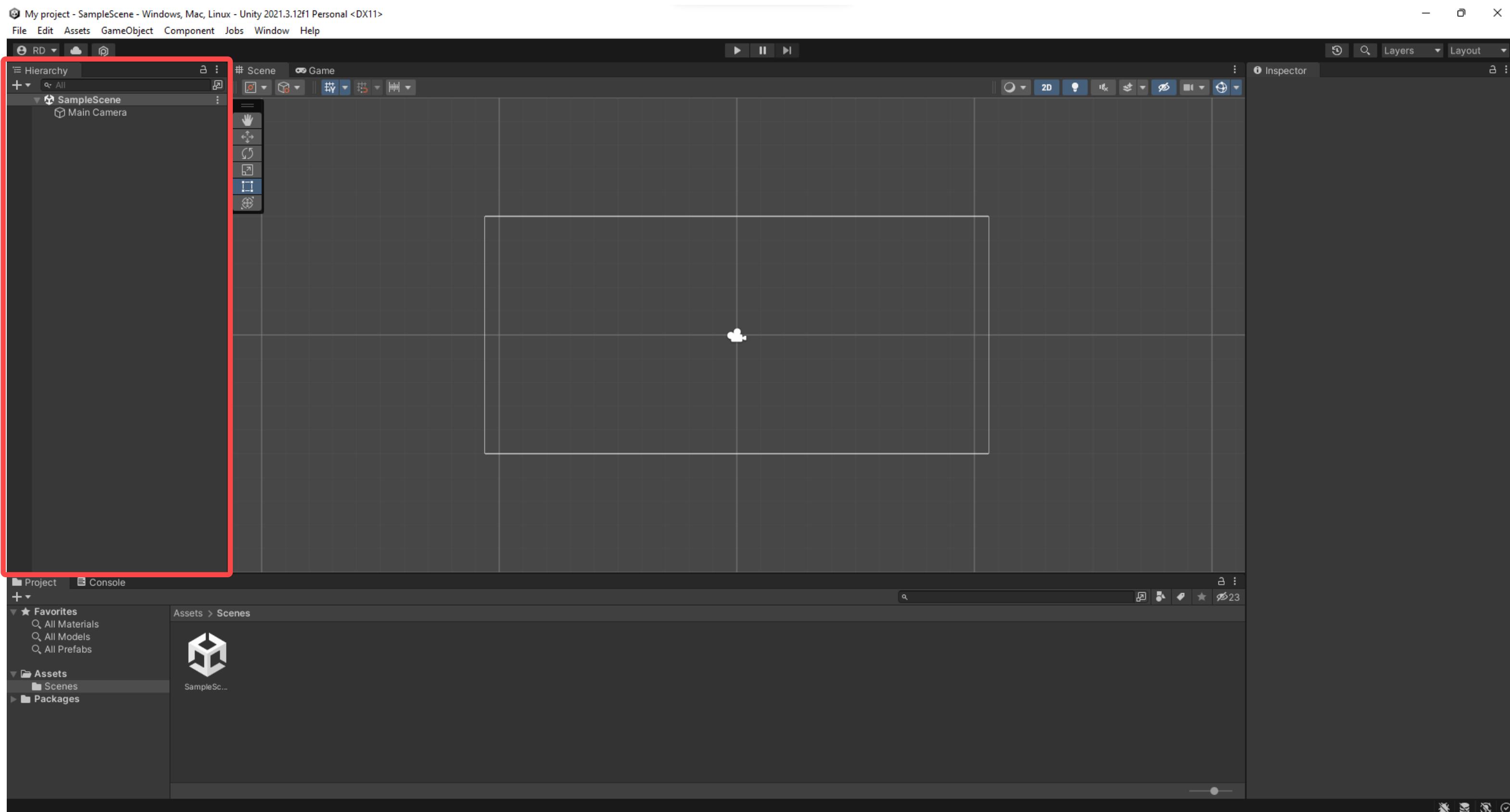
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Expanded view



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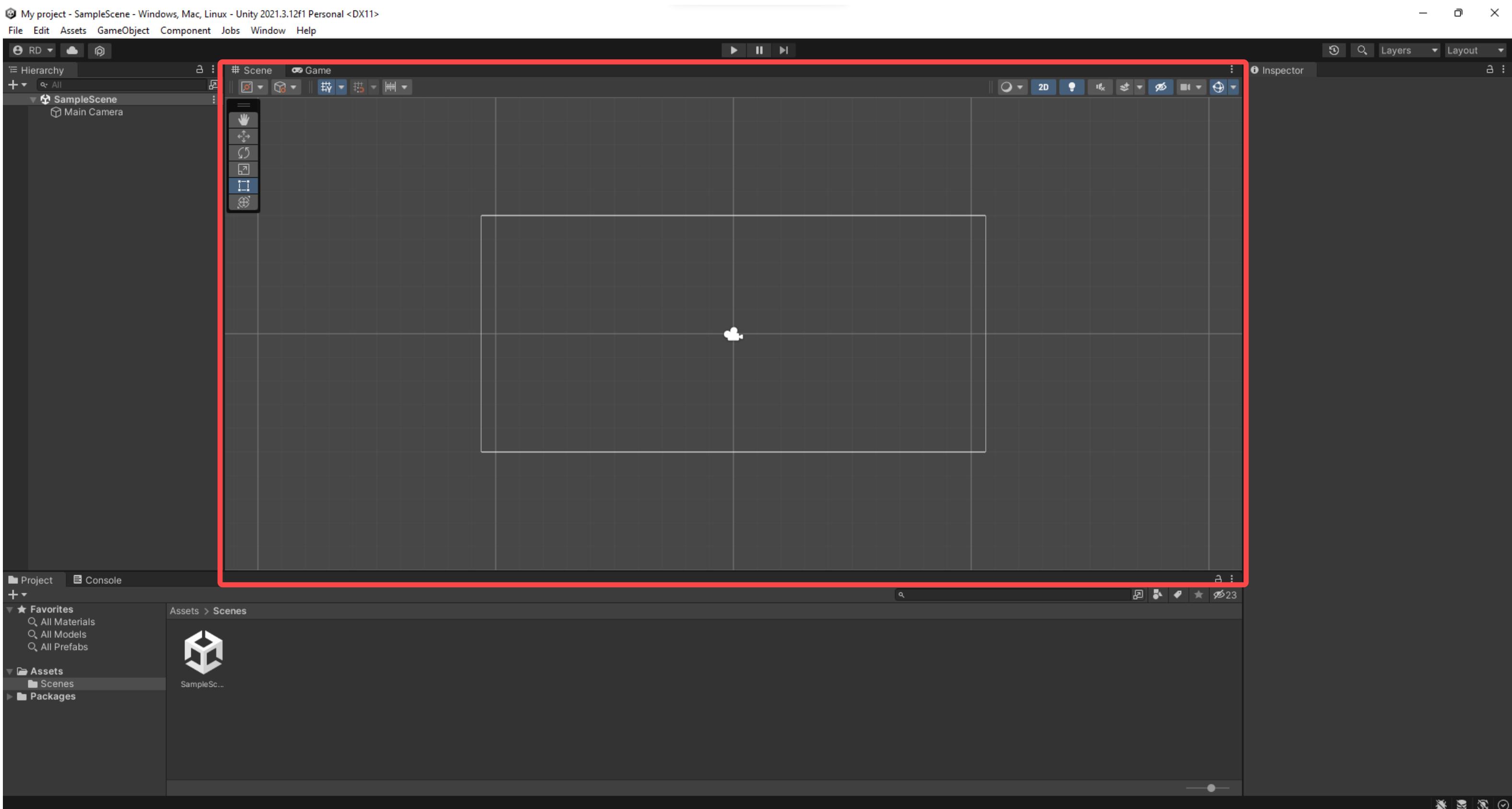
Object Hierarchy



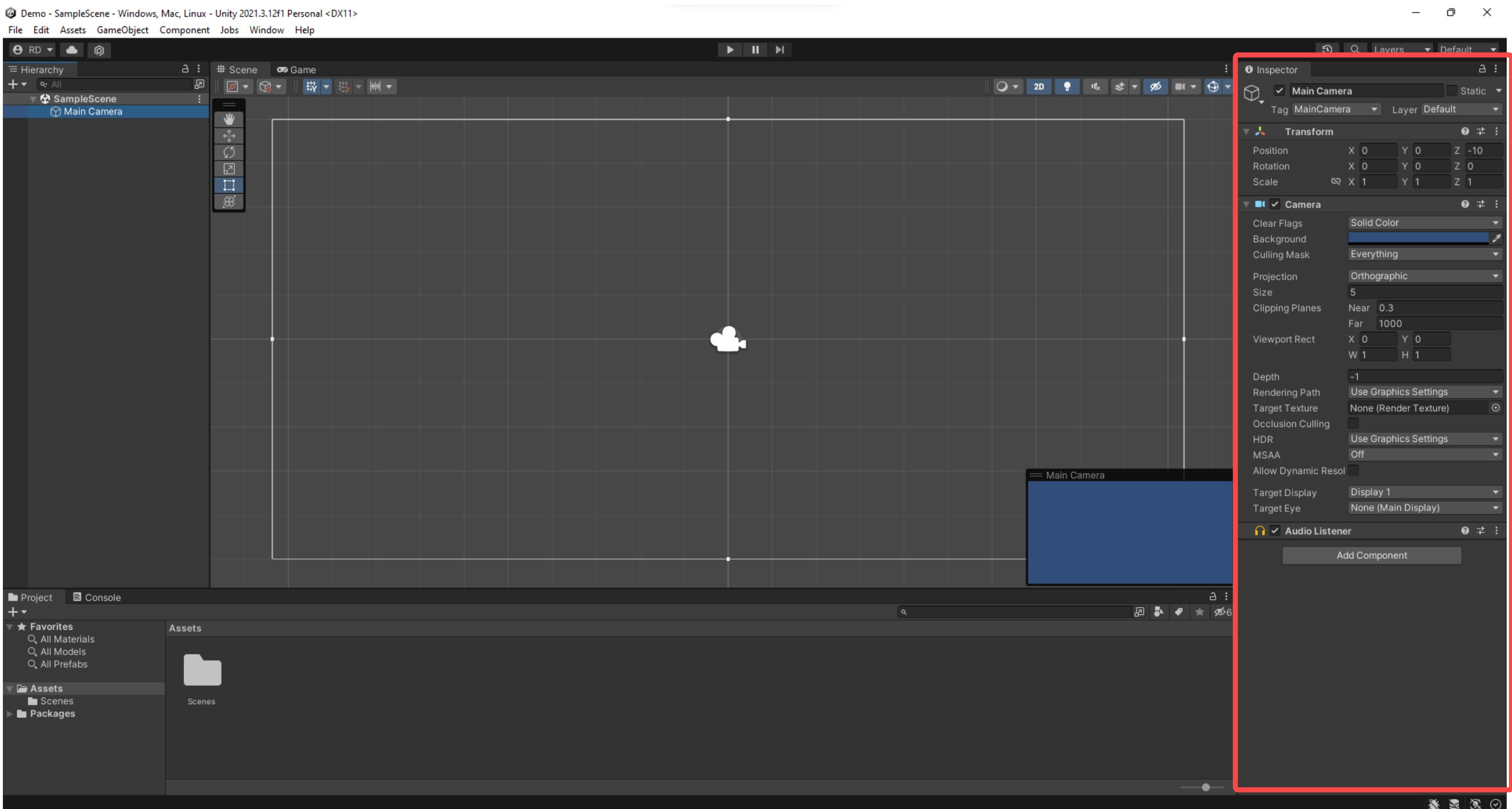
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Viewport



Object Inspector



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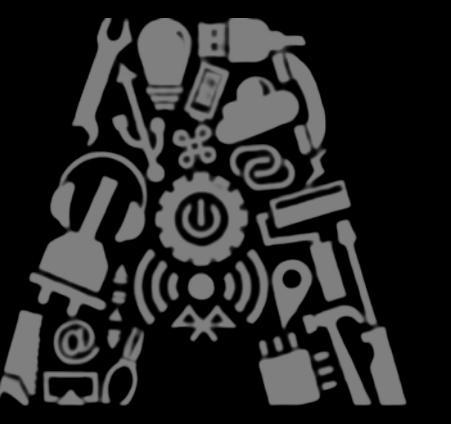
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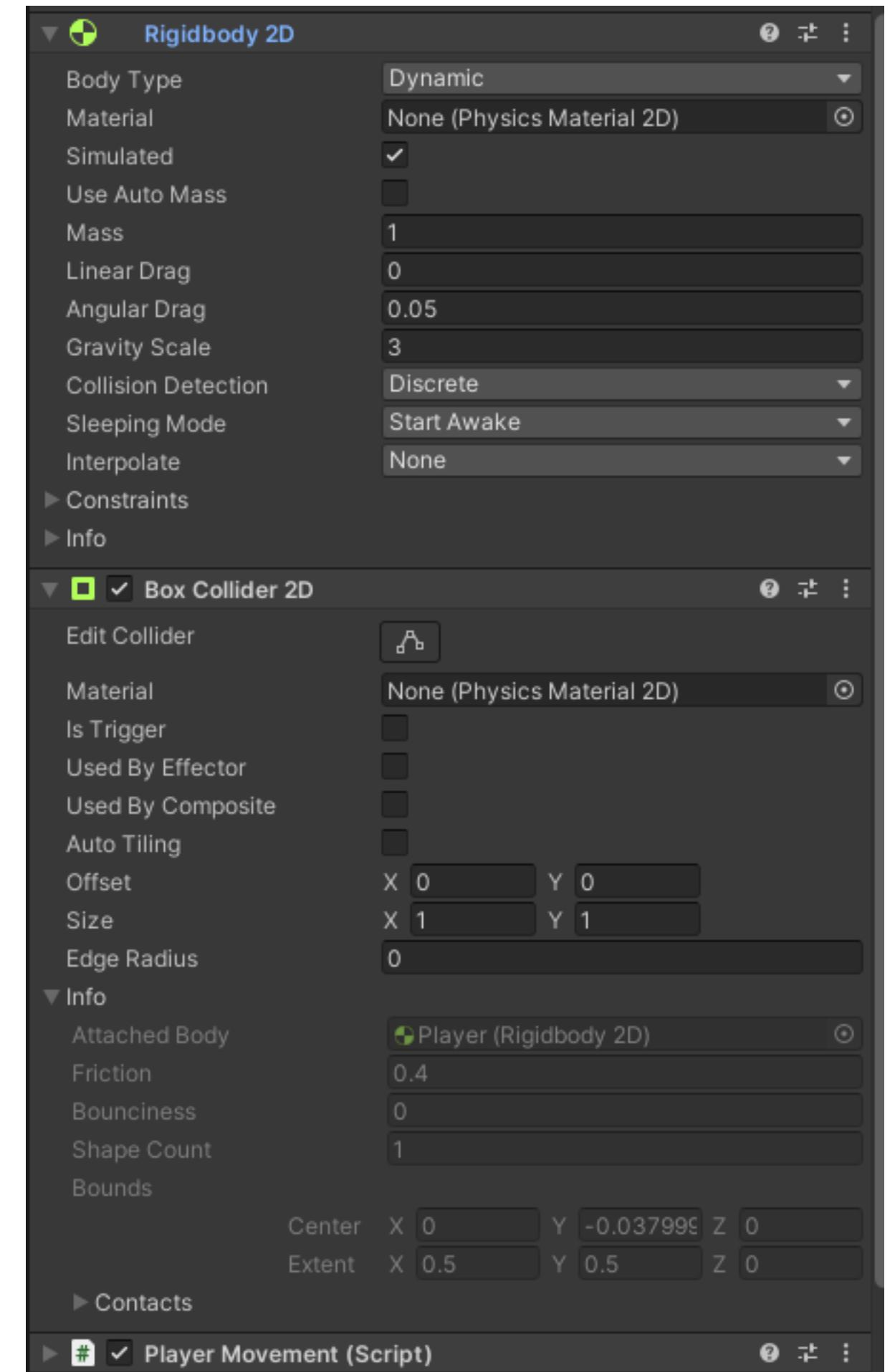
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Setting up objects

01 Adding RigidBody2D

02 Adding Colliders

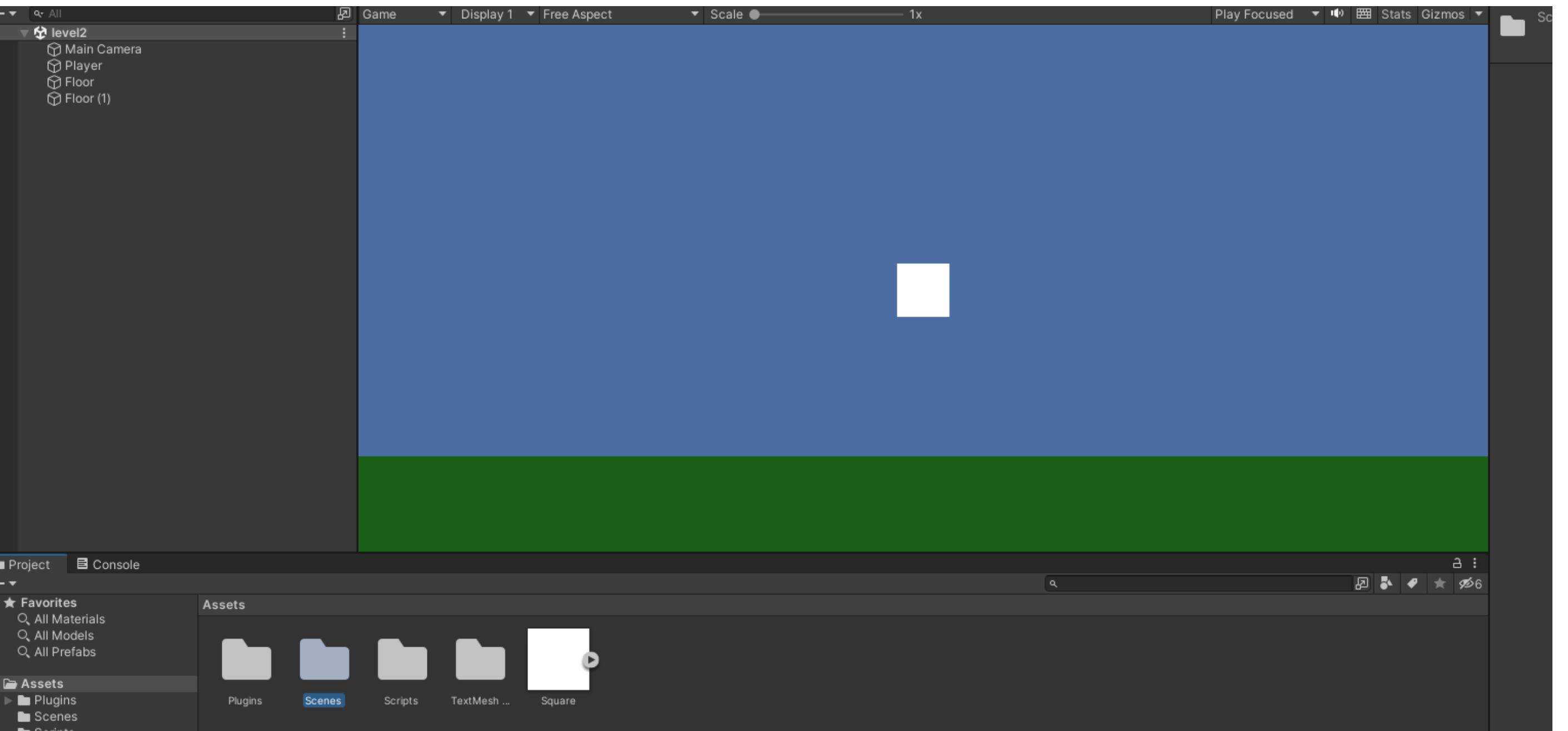
03 Making a C# script for PlayerMovement



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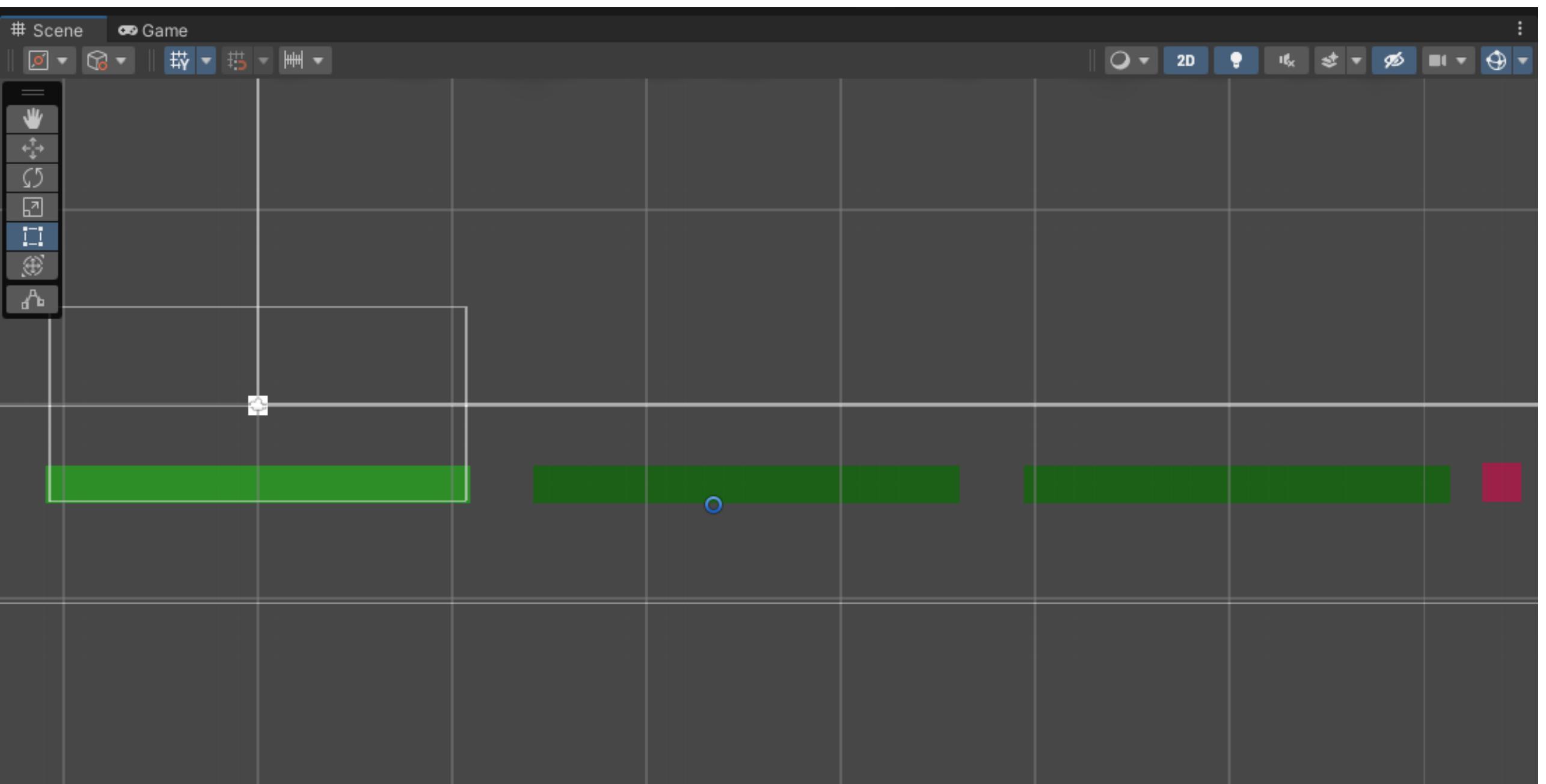
Scripting

- 01 Writing script for movement
- 02 Changing force values
- 03 Adding jumping
- 04 Adding Ground Check



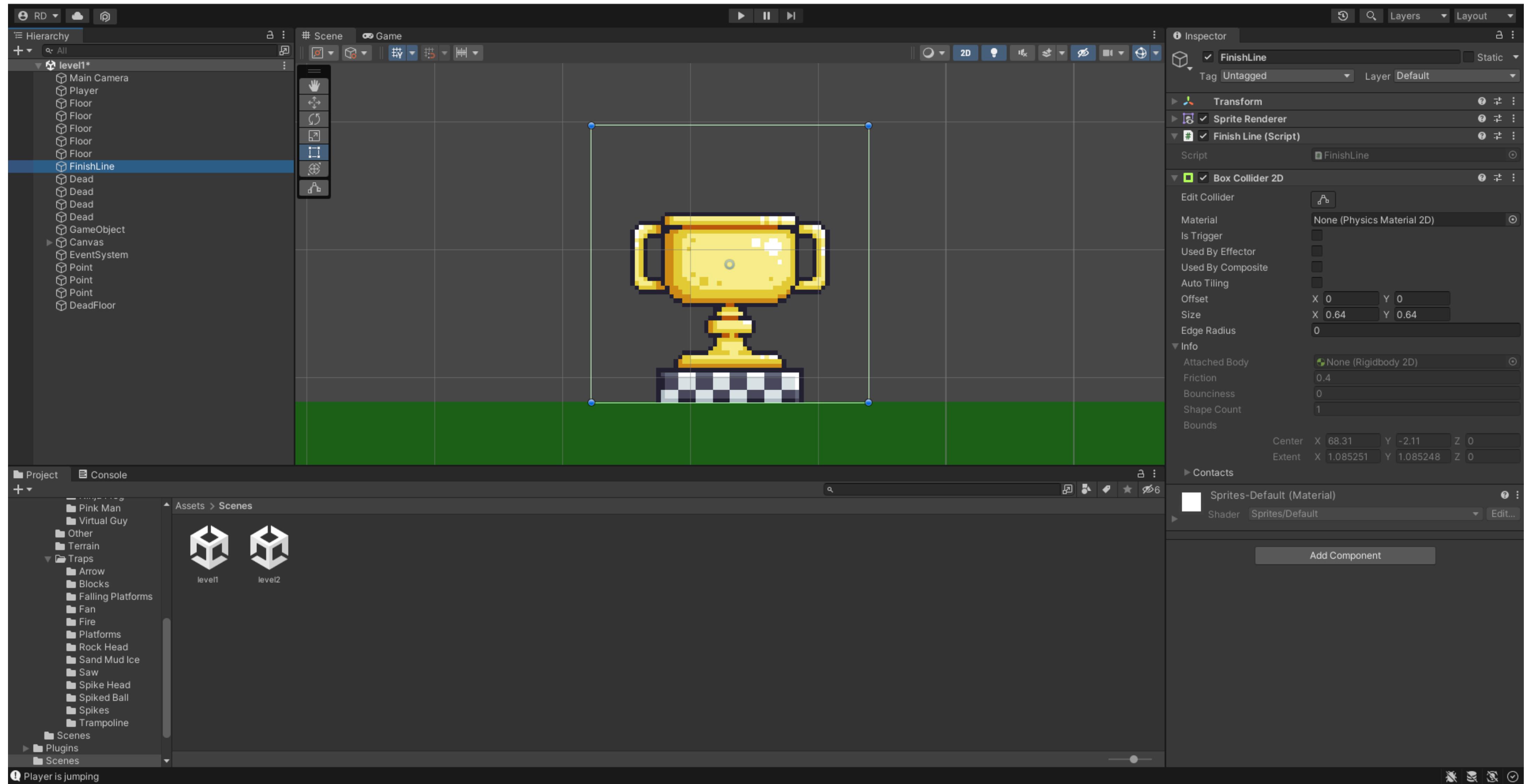
Scripting Contd.

- 01 Test out player movement script
- 02 Add floor tiles to create level
- 03 Write camera movement script



Making Multiple Levels

- 01 Renaming sample scene to level 1
- 02 Making the end level object
- 03 Write FinishLine script and add it to the object

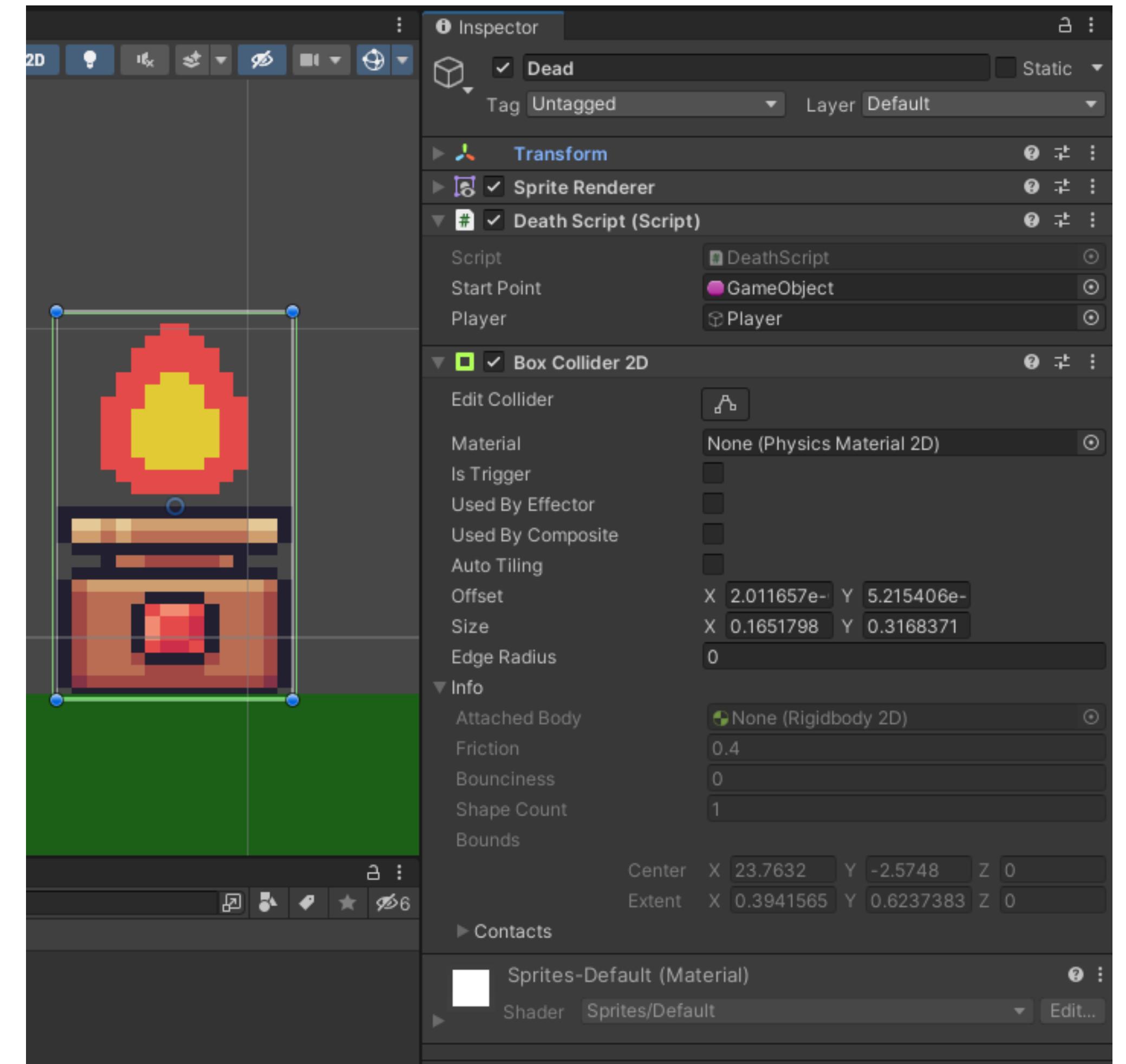


Making Player Death Object

01 Make death object

02 Make empty object to mark respawn

03 Write DeathScript script for respawn



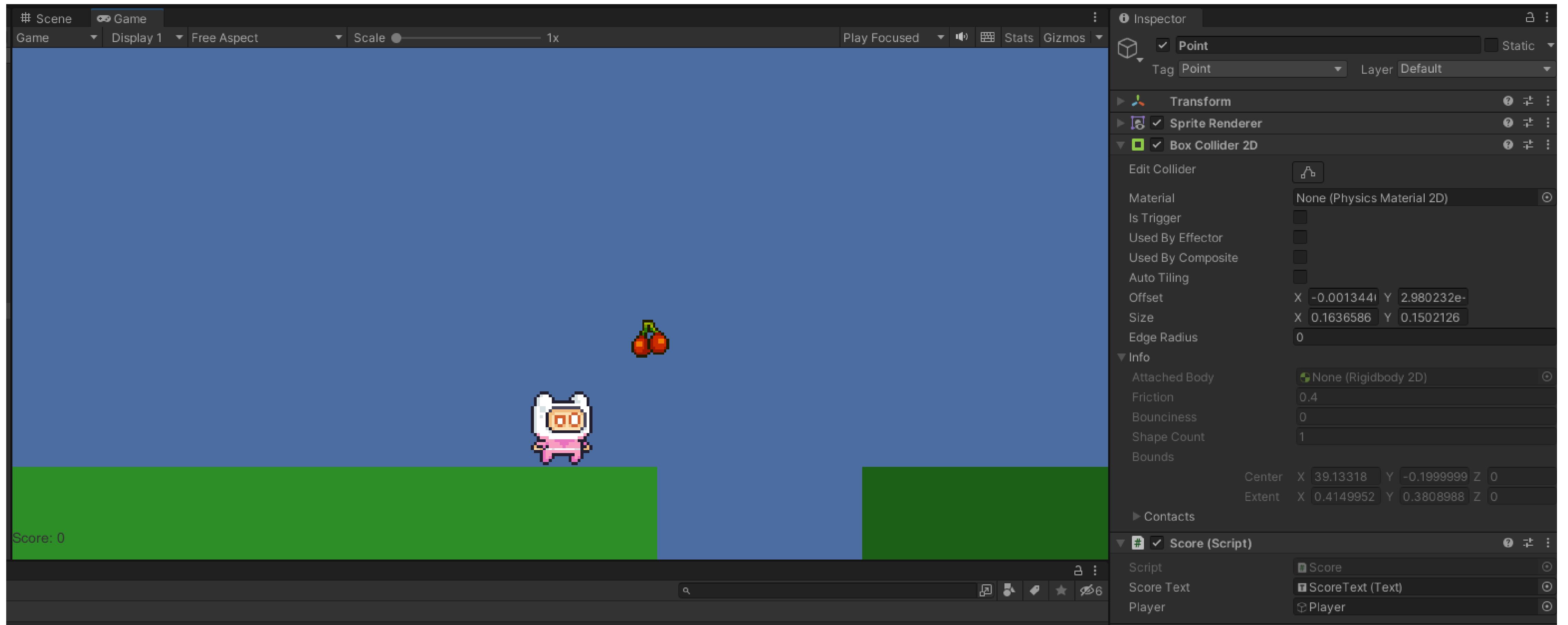
Adding a Scoring System

01 Make Score Object

02 Inside Cava add ScoreText object

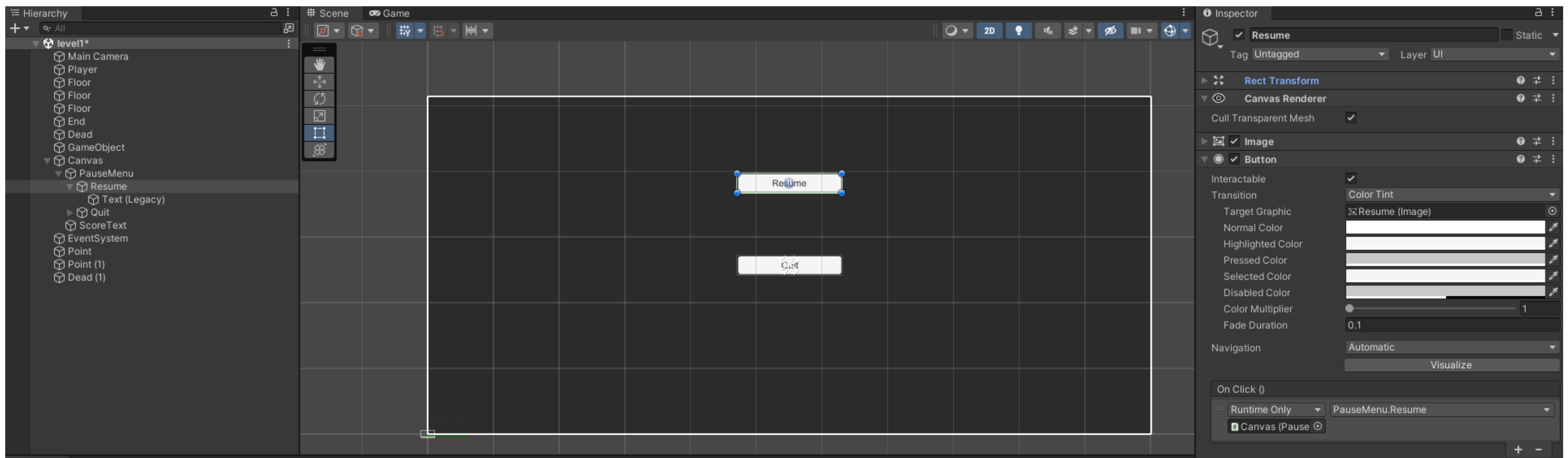
03 Write Score script

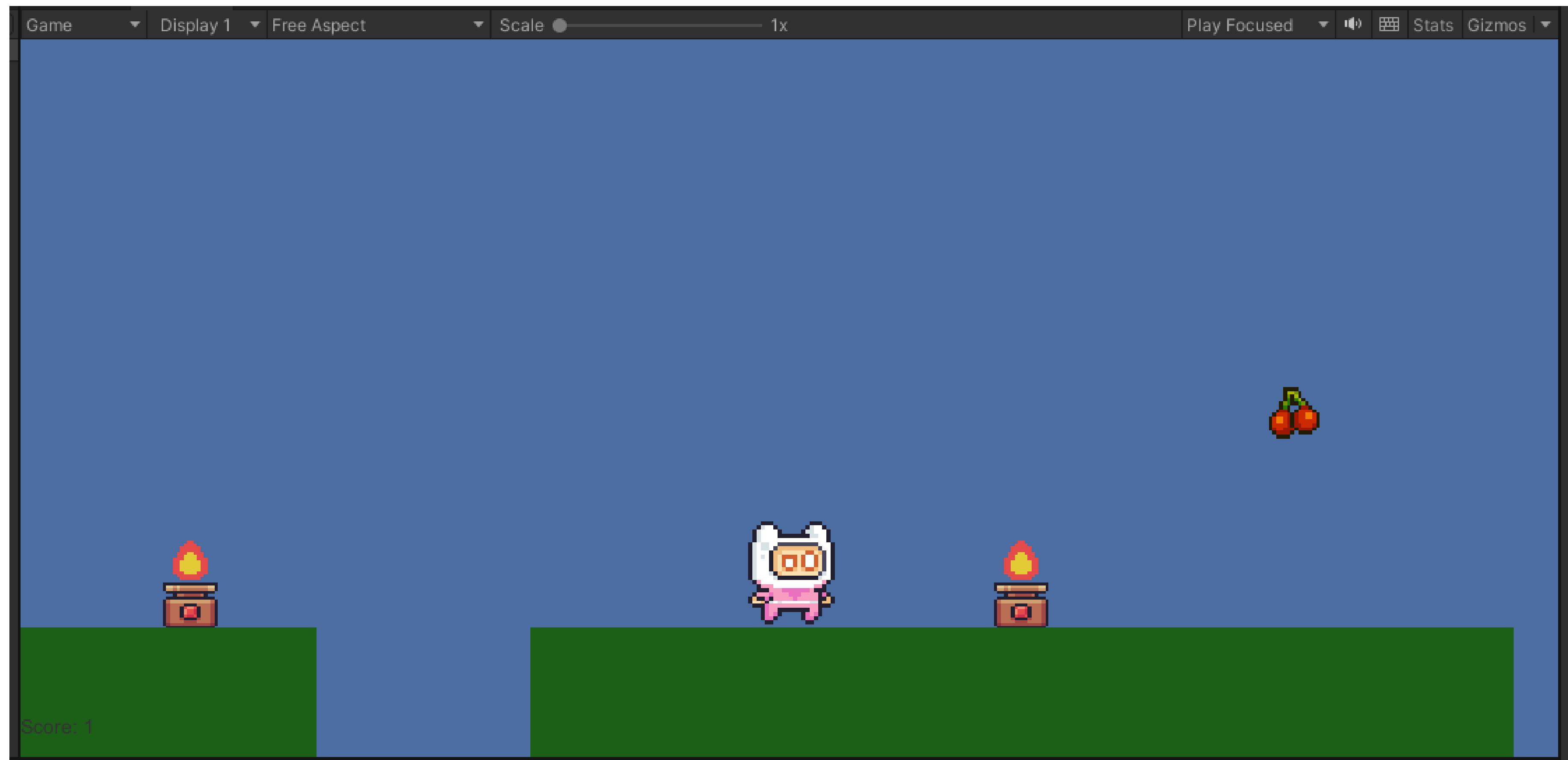
04 Add script to objects



Making Start screen UI

- 01 Add Canvas object
- 02 Make Panel with 'Resume' and 'Quit' buttons
- 03 Write PauseMenu script to add button functionality
- 04 Attach objects and scripts





Conclusion



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Thank You

Any Questions?

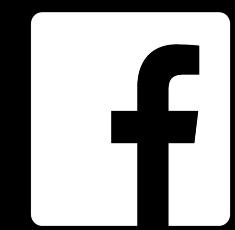


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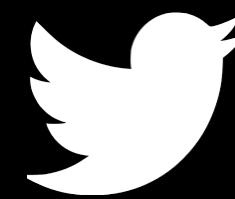
Social Media



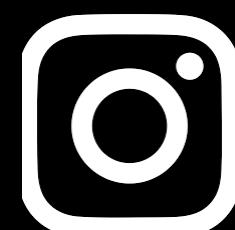
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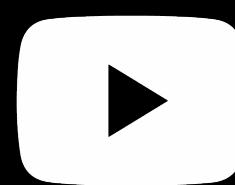
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